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(54) Title: ASSAYS FOR THE DETECTION OF MICROTUBULE DEPOLYMERIZATION INHIBITORS

(57) Abstract

This invention provides methods for the screening and identification of agents having potent effects on the progression of the cell cycle. In one embodiment, the methods involve contacting a polymerized microtubule with a microtubule severing protein or a microtubule depolymerizing protein in the presence of an ATP or a GTP and a test agent; and (ii) detecting the formation of tubulin monomers, dimers or oligomers. The p60 subunit of katanin provides a particularly preferred microtubule severing protein possessing both ATPase and microtubule severing activities.